

What is claimed is:

1. A radiation image read-out apparatus which is provided with a line sensor which detects stimulated emission emitted from a radiation image convertor panel upon exposure
5 to a line-like stimulating light beam extending in a main scanning direction and reads out a radiation image recorded on the radiation image convertor panel while moving the line sensor and the radiation image convertor panel relatively to each other in a sub-scanning direction intersecting the main
10 scanning direction, wherein

the line sensor comprises a CCD having a number of light receiving portions two-dimensionally arranged along the main scanning direction and outputs electric charges obtained by photoelectrically converting the stimulated emission received
15 by the light receiving portions after binning the electric charges in a direction perpendicular to the main scanning direction.

2. A radiation image read-out apparatus as defined in Claim 1 in which the line sensor has light receiving portions
20 which are arranged in a direction perpendicular to the main scanning direction at least over a distance twice the width of the stimulating light beam.

3. A radiation image read-out apparatus as defined in Claim 2 in which the line sensor has light receiving portions
25 which are arranged in a direction perpendicular to the main scanning direction at least over a distance at least five times

the width of the stimulating light beam.

4. A radiation image read-out apparatus as defined in Claim 1 in which the light receiving portions are smaller in the pixel size in the main scanning direction than a pixel size which is the largest in pixel sizes at which a radiation image can be read out from the radiation image convertor panel at a predetermined resolution in the main scanning direction.

5. A radiation image read-out apparatus as defined in Claim 1 in which the line sensor is provided with a micro lens array extending in a direction perpendicular to the main scanning direction in front thereof.

6. A radiation image read-out apparatus as defined in Claim 5 in which the micro lens array is provided over an area including the light receiving portions and the charge transfer paths of the CCD.